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ABSTRACT

Consistent with education reform efforts, the achievement of systemic change in American education demands that school improvement efforts be fused with professional development opportunities that lead to self-renewal for teachers. This report emanates from a 5-day conference of the Christa McAuliffe Institute for Educational Pioneering (CMI), an organization that nurtures the efforts of innovative and creative teachers around the country. The document emphasizes professional development activities that must accompany change initiatives. Underpinning the report are personal stories that CMI teachers tell of their struggles to make change happen. A unifying theme of the stories is the presence of risk and the capacity to resist discouragement. For the group of CMI teachers who believe that educational structures and practices must be altered and whose deliberations led to this report, it made sense to look at themselves and their schools in terms of four separate but overlapping challenges: (1) diversity and multiculturalism; (2) teaching and learning; (3) systemic reorganization; and (4) coalition building. As the four challenges indicate, teachers will be the key figures in bringing about change in schools. (LL)

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CHANGING TEACHING: THE NEXT FRONTIER

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A New Vision of the Profession

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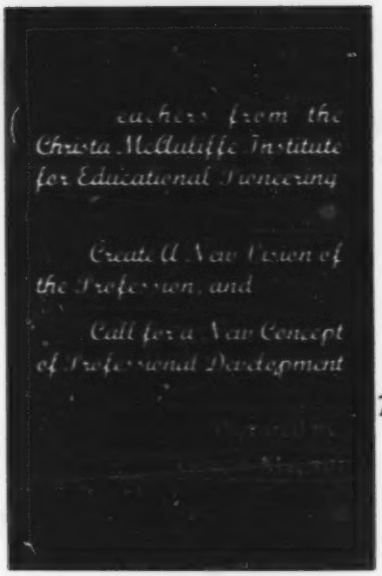

TEACHING: THE NEXT FRONTIER

In a letter [illegible] former president to another, Thomas Jefferson wrote to John Adams that the [illegible] kindled by the American Revolution 50 years earlier had spread to the extent that they could no longer be extinguished. Change was an established fact and even those to whom it was anathema would have to take account of its unsettling influence.

And so it is today with school restructuring. There is no turning back. Forces have been unleashed that make Americans think differently about almost every aspect of schooling. So problems that were mouthed for decades have lost their magical power, and what was taken for granted in teaching and learning no longer wins automatic endorsement. Some schools will resist change longer than others, but eventually the entire country will be affected in ways large and small by the educational ground swell that began stirring a decade ago. The rumble of change, however slight, can be felt in the corridors of even the most staid school buildings in the land.

It is a revolution of sorts, and teachers, more than all others, are the ones poised on its cusp. They are in a precarious position from which they are compelled to see themselves and their schools through new eyes. The old lenses will not do. It is up to teachers — and some have already begun — to learn about and use fresh ways of viewing their work in schools so that they can bring into focus what it is necessary for them to do.

For the group of teachers whose deliberations led to this report, it made sense to look at themselves and their schools in terms of four separate but overlapping challenges:

- Diversity and Multiculturalism
- Teaching and Learning
- Systemic Reorganization
- Building Coalitions

This approach leads to an expansion of the traditionally accepted role of the teacher and lends coherence to what might otherwise seem disjointed and out of reach. To this end, they try to interpret the meaning of change for their schools in connection with the nation's shifting demography, the fundamental principles of teaching and learning, the systemic nature of what is required of them, and

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RECOMMENDATIONS

• The achievement of systemic change in American education demands that school improvement efforts be fused with **professional development** opportunities that lead to self-renewal for teachers.

• The focus of **teacher professionalism** in school change must include all conditions and events that affect the learning of students.

• Professional development should be a vehicle for changing school culture so that the school is a place for the **ongoing learning of teachers** as well as students.

• Teachers must be freed from "one-shot" inservice training and be provided sufficient **time** to engage in meaningful and regular opportunities to expand their professional abilities.

• Teachers must have access to resources that enable them to unleash the full potential of all students, respecting at all times the **culture, language, gender, and individual needs** of students.

• Teachers must be given the opportunity and resources to **construct curriculum and assessment** that are inclusive of, and sensitive to, all forms of **student diversity**.

• **Technology** must be recognized as an essential resource that no teacher or learner in America should be denied.

• The stale orthodoxy that defines the classroom as the sole place of learning must be abandoned. **Teaching and learning occur everywhere.**

• Teachers must expand their knowledge and skills about enlisting **parents as partners** in their children's education, with full respect at all times for family structure, language, education level, and social status.

• Teachers must have professional development opportunities that generate the knowledge and skills to **build broad-based community coalitions** that create healthy and effective schools.

A FRESH BEGINNING

The idea of a typical American schoolteacher joining a crew of professional astronauts for a journey into space captured the hearts and minds of Americans less than a decade ago. Newspaper and television reports in the final weeks of 1985 detailed the experiments that Christa McAuliffe was scheduled to conduct miles above Earth on behalf of children who would be observing in classrooms around the world. The New Hampshire educator, with her curly dark hair and bulky space suit, became a palpable symbol of education's new era, where all things were possible.

Then, on that terrible day of January 28, 1986, in a picture-perfect sky glistening with the morning sun, the space shuttle Challenger exploded 73 seconds after liftoff in full view of the millions of students who had assembled to watch the launch on television sets in their schools.

Those who knew Christa McAuliffe and those who admired her from afar sought an adequate way to memorialize her. Thousands of individuals from every corner of the country made unsolicited contributions in her memory to the National Education Association, which created the Christa McAuliffe American Education Fund. The National Education Association allocated these special contributions to the National Foundation for the Improvement of Education, the foundation it created in 1969 to promote excellence in teaching and learning.

The Foundation, in turn, created the Christa McAuliffe Institute for Educational Pioneering (CMI) in an effort to capture this outpouring of sentiment and perpetuate the exceptional abilities and influence of the middle school social studies teacher. Christa McAuliffe's memory has been preserved by nurturing the efforts of exemplary educators, who in their own ways, are emulating her and testing education's unexplored regions. Since 1988, the Institute has annually designated innovative and creative teachers around the country as McAuliffe Educators and Fellows, providing opportunities for them to study and collaborate.

These 103 teachers, from their unique perspective, have special insight into the needs of American schools. This report, emanating from a five-day conference of the CMI teachers at Washington's Georgetown University in January, 1993, offers their ideas for fresh initiatives to transform the nation's schools into the educational

showplaces that they ought to become.

In the pioneering spirit that they personify, the CMI teachers put forth their vision as a kind of map that they hope will guide others who wish to accompany them on their expedition of change. The journey is not without risk, but it holds the promise of substantially improving American education, which is now the subject of widespread dissatisfaction. These are teachers who have often taken chances as members of a profession in which the boundaries of the status quo confine the ambitions of so many of their colleagues. "We are people who are willing to go outside the white lines," a middle school teacher said of the inclination of CMI teachers to act first and ask questions later.

The very coming together of these talented educators represents the sort of networking that they believe is essential if change is to occur. One after another, CMI teachers attest to the stultifying impact of the solitary condition that characterizes teaching. Their vision is one that depends on building bridges to connect islands of isolation.

Improvement on a wide scale is unlikely, though, unless the nation's teachers get more help than has been forthcoming until now. Many of the needed changes will ineluctably depend on better programs of professional development for teachers. No longer can it be acceptable to think that the old practice of assembling veteran teachers in the cafeteria at the end of a long day and lecturing at them is enough to improve schools.

Teachers have to learn how to perform various tasks differently and how to work together. Furthermore, teachers who lead attempts to bring about change must be made more aware of the wider implications of their efforts so that they can recognize that each change in a school affects many other aspects of the school.

In many ways, the gathering of CMI teachers at Georgetown University was a metaphor for what must occur among all teachers if concerns about improving instruction are to translate into a broad, new national effort to establish better schools. The meeting was permeated by an intent to fuse ideas for change to notions of how professional development might support the arduous pursuit of change. This was surely the opening chapter in a book that is still being written about a conception of school change that goes far beyond the incremental and piecemeal approaches of the past, which seldom made allowances for the learning needs of teachers.

What occurred in the meeting rooms and corridors of Georgetown's conference center during that chilly week in late January, underscores the conviction of participants that a teacher's dedication to instructional excellence, however laudable, is not enough to ensure that schools will be able to achieve all that they might. Teachers must know a good deal more about the context in which they work and must be prepared to alter that context, if necessary, in behalf of their students.

Participants broke into separate groups so that each area of potential change might be examined more intensively. One group searched for meaning in the shifting composition of the student enrollment. One group delved into issues of teaching and learning. One group probed the significance of organizational structures. One group explored the value of forming alliances with familiar and unfamiliar allies. And then, as if to model the holistic nature of the entire enterprise, emissaries from each group visited the other groups to scrutinize further the links among them and to offer suggestions as to how the symbiotic relationships might be nurtured.

In some ways, the reform movement has inched forward almost as far as it can under existing circumstances. Now, those who work in schools must acquire the new attitudes, skills, and knowledge essential to implementing and sustaining deep, systemic change. The professional development of educators may, in fact, be the next educational frontier to be conquered. Teachers have to start thinking of themselves as learners, just like their students.

Thus, this report is distinctive in its emphasis on the professional development activities that should accompany change initiatives. For too long, teachers have been expected to bear the burden of school change without receiving appropriate preparation to perform the work that they are asked to do.

New reading and math programs are dumped on them, and teachers are miraculously supposed to know how to use them. Computers and other technological

devices are wheeled into classrooms without showing teachers how they work. Teachers are told to watch for signs of child abuse and provided no training for this sensitive task. Site-based management is decreed, and teachers are expected to find time for it in a schedule so full that often they cannot even get to the bathroom.

What is usually absent from discussions of school improvement is adequate consideration of the fact that teachers cannot take on new duties without proper preparation. Those who believe that change can be brought about by mere fiat and that teachers will automatically carry out assignments with which they have no familiarity are mistaken. Professional development is a prerequisite for change in schools.

An implication of this proposed focus on professional development is that the uses of time in schools must be reconsidered. Teachers need more opportunity during the school day to gain a better grasp of the ideas and applications that will improve teaching and learning. This is not something to be done between bells or before going to bed.

In turn, the public ought to appreciate that teachers can be working even when they are not interacting with students. Reconfigured schedules can provide teachers with the time to become the knowledgeable professionals that they want to be. The school day must offer time for the intellectual growth of teachers, as well as for students. "Even teachers should have a period to read and discuss research," says an elementary school teacher for whom the day never seems long enough.

Underpinning this report are the personal stories that CMI teachers tell of their struggles to make change happen. These are tales of success and triumph, but also of disappointment and even failure. Contained in these stories are elements — turning points, breakthroughs, climaxes, resolutions — that can be extracted and used as the subjects of further reflection, helping to unravel the mysteries of the process of educational change.

A unifying theme of the stories is the presence of risk. Without license to fail, say CMI teachers, few educators are willing to buck the system and strive to do what is needed to improve teaching and learning. Also, the experiences of CMI teachers show that agents of change must have the capacity to resist discouragement. Like buoys in the ocean, these are people with resilience, able to bounce back and upright themselves despite the storms and waves that engulf and temporarily upend them.

The vision that the CMI teachers propound comes in four overlapping parts, each of which is concerned with one of the major areas in which the teachers believe that educational structures and practices must be altered during the final years of a century rushing headlong to its conclusion. Time is short, and the future of young people is at stake.

- First, schools must show that they are cognizant of the diversity of their enrollments, a composite that, in effect, reflects the variegated nature of the planet itself.

- Second, the environment for teaching and learning must in every way place the learner at its core and be enriched by recognizing that the fullness of education is best achieved through acknowledgment of everybody's dual role as teacher and learner.

- Third, schools must be reorganized so that systemic change is pursued through the fulfillment of a vision that emphasizes the interconnectedness of all facets of teaching and learning.

- Fourth and last, coalition building is essential because teachers alone cannot be asked to do a job that needs the human and material resources of the larger society.

DIVERSITY AND MULTICULTURALISM

The challenge facing schools is to address the learning needs and expectations of a changing and diverse society. To these ends, the teachers and schools must consider the following:

- The need for equity so that all children are treated fairly and with respect
- The role of language so that multiple language acquisition is seen as beneficial and desirable
- Cultural diversity and its implications for pedagogy and the school curriculum
- Shifting social structures in the community and in the family and what these realignments signify for the schools

My story is about the dream of some teachers who decided that they wanted to take what the children had to offer and use that to help the children teach each other. We had programs in our district for teaching students in English and for teaching students in Spanish. But we didn't have anything that helped both groups to learn the other's language. The teachers created their own model. And that school is now a reality.

What we do is take English speakers and Spanish speakers, and we teach them both in both languages. Students learn academic language from their teachers, but they learn conversational language from each other. From kindergarten to second grade, all students are taught in Spanish. There is some English taught every day, and the amount is increased each year. In third grade, the students begin to learn English from the English speakers, and English speakers learn the Spanish from both the classroom teacher and the others.

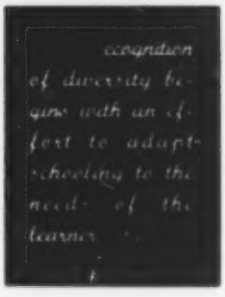
This has created a community where everyone is on an equal footing, everyone has someone or something to bring. We use our parents. We use our teachers. Everyone at the school speaks two languages, and we respect each other's languages, and there is no sense that one is better than the other.

When I came to the school, I did not come as a teacher but as a parent of an English-speaking child. The idea that you would take students who spoke the language of the minority and use that language to teach it to the majority population was unheard of. What we have done at this school is to create a community of people — students, parents, teachers, and business people — who believe in our program and joined them together in a shared vision that everyone can bring something to the learning situation and that all people's languages and cultures are important and valuable.

The process was not an easy one. Putting your children into a program where they would not learn in their own language but learn in a second language all the way until third grade was a tremendous risk. I had no way of knowing whether my child would be able to read in either language by the third grade. But I realized that was indeed what many of the parents had previously done when they placed their children in a school that taught their Spanish-speaking students in English.

Because it was such a radical program, we needed to prove to people that it would ultimately work. We kept data, scrupulous data. We tested all the children when they came in and when they left. We now have longitudinal studies, and what we found is that the students all come ready to learn a second language. That language might be Spanish, might be English, but they all come in

Students should have the chance to pursue and discover knowledge by building on what they already know. The experiences that they bring with them from their homes and neighborhoods provide a starting point for formal education. "I have a colleague who has a classroom of low achievers," says a middle school math teacher in Oregon. "She asked, 'What do we do with kids like Kim?' I said that we have to find ways to make them successful, not weed them out."



Children, regardless of differences, come to school knowing something. A youngster's experience is not dross to be discarded. To deny the validity of a child's upbringing is to erode the foundation of the house of learning that he or she hopes to erect. A school should offer the potential for a child to transform a shack into a castle.

Schools must be prepared to serve all children, regardless of variations in backgrounds and needs. "The question is not whether the child is ready for the school, but whether the school is ready for the child," says a teacher in Texas. It is incumbent upon the system of formal education to be more open-minded about the abilities of children.

Educators tend to weigh the intelligence of students only in terms of IQ, standardized test scores, and traditional academic achievement. Students, however, may excel in a multitude of ways, and schools should discover and appeal to the various talents that often lie dormant in children, waiting to be tapped. Howard Gardner, a psychologist at Harvard University, has posited a new theory that outlines a range of intellectual competencies, any of which might be the strength of a particular child. In effect, according to this theory, there are seven different kinds of intelligence — linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, intrapersonal, and interpersonal.

In one school, a teacher tells the story of a first grader named Todd, who bears the label "at risk." He is the victim of physical and sexual abuse and possibly of fetal alcohol syndrome as well. Half way through the school year, he is a behavior problem, unable to concentrate on school work and still struggling, despite regular remedial assistance, to recognize the letters of the alphabet. One day an educational researcher visits the classroom and demonstrates for the children how to take apart and reassemble, first, a meat grinder and, subsequently, an oil pump. Todd watches in quiet fascination and then, by trial and error, proceeds silently on his own to disassemble and then put together each item. The work complete, he emits a huge smile of satisfaction. No other student is able to perform the task to the extent that he is.

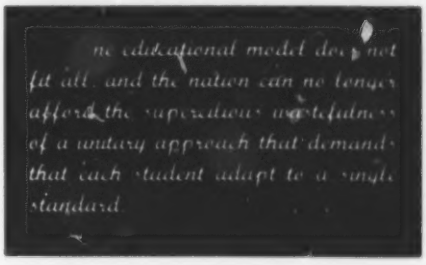
Todd displays understandings of spatial relationships and logical reasoning of which his teacher did not know he was capable. She sets up an "assembly area" in a corner of the classroom and appoints Todd the "expert fixer." For the first time in his school life, he has a chance to bask in the glory of success.

Schools must do more to respect the uniqueness of all the Todds and recognize that in the individuality of children reside the seeds that, when cultivated, will blossom into a rich garden of many hues and infinite variety.

Assessment strategies, too, must be attuned to individual differences and then embedded in the instructional program so that continuous performance, not a one-shot, multiple-choice test, serves as the yardstick upon which to gauge a student's progress. No one would propose to pitch 10 balls to a baseball player at the end of the season to find out whether or not he can hit. Instead, he would be observed at the plate day by day, as he learns in actual play to adjust to curve balls and sliders, and his cumulative performance under authentic conditions would be judged.

No child should be written off just because he or she is different or disabled. That is why the practice of tracking children according to prior achievement is not in their best interest. Every student ought to have the benefit of a stimulating and challenging curriculum and should be expected to do no less than that of which he or she is capable. A mathematics teacher in Massachusetts tells of instituting a policy to allow average students in the school to enroll in her honors geometry course. Formerly, places in this course were reserved for the academic stars. "The honors students were helped by the questions asked by the average-achieving students," she says.

Recognition of diversity is not something to occur just once a year as, say, Mother's Day or Black History Month. It should be ongoing. "We have a dream," says an elementary school teacher in Arizona, "that in September, when we speak


no educational model does not
fit all, and the nation can no longer
afford the superficial worthfulness
of a unitary approach that demands
that each student adapt to a single
standard

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of the contributions of Hispanic American citizens, it would be part of what we learn and not something added to assuage guilt or to raise self-esteem for just a short period."

Multicultural elements should not be mere appendages to the curriculum. A thorough and honest depiction of diversity comes in the form of strands woven through every appropriate aspect of the curriculum, whatever the subject matter or the time of the year. A curriculum respectful of diversity allows youngsters to gain greater appreciation of themselves and their forebears, while simultaneously imparting an understanding of others who are less familiar to them.

> *The question is not whether the child is ready for the school, but whether the school is ready for the child...*

"Students in American schools must learn about and understand each other, not just by celebrating unfamiliar holidays and other superficial activities, but by seriously studying other cultures, traditions, and historical experiences," says Harold Howe 2nd, a former vice president of the Ford Foundation. Otherwise, he predicts, "we could revert to a nation of competitive enclaves trying to beat each other out." The tragedy of Yugoslavia should be reminder enough of the perils that await a society in which people evince no empathy with the cultures and traditions of others.

Schools are not without potential allies in this effort to fashion new approaches that take cognizance of individual needs. Among the most powerful of the tools at the disposal of education for this purpose is technology, which in its many forms multiplies the ability of teachers to open new vistas for each student. CMI teachers are noteworthy in their willingness to use technology and in their eagerness to find ways to harness it in behalf of the learning needs of their students.

The excuse that it takes too much effort to meet individual needs is unacceptable in an era in which it is possible through the marvel of electronics for each child to have his or her own specially tailored program. This does not relieve teachers of their obligation to respond to diverse learning needs, but it means that a teacher who is not provided with such technology labors at a disadvantage.

In the Detroit area, inner-city and suburban schools have exploited technology to span racial and ethnic boundaries that otherwise would keep students separated by the colors of their skins. The project began after two high schools that were part of an international telecommunications network decided that being linked to each other would be as worthwhile as being tied to schools overseas. The schools were only 18 miles apart, but they might as well have been on different continents, one virtually all white and the other virtually all black.

Computers and fax machines were used to connect a pair of history classes that were both studying the French Revolution. Assignments were structured so that students at the two schools had to confer. This led to each class visiting the other and to classes from the two schools going off on field trips together. Eventually, other schools were added to the program, and year-long themes were selected for the students to pursue, allowing them to collaborate through technology.

The distinctiveness of students owes much to their families, which ought to be engaged as partners in the educational process. Families need information and support from the school, and, just as the needs of students differ, so do those of families. A student's family represents a crucial part of his or her learning environment. To ignore the family in this regard is to pretend that children have no life beyond the confines of the classroom.

More than that, the active involvement of family members in their children's classrooms is yet another way for them to contribute. Family members are resources not to be squandered or ignored. Their function in reinforcing education in the home is primary, but a growing number of teachers are finding that parents — some of whom possess expertise that might not otherwise be available to the school — can help expand and enrich instruction and promote the social and emotional growth of children as well. At the heart of James Comer's School Development Program, which has received so much attention as a method for revitalizing inner-city schools, is the idea that parents who come into the building to work in concert with school personnel can by their very presence be role models for the children.

Family members can also help the school understand the cultural traditions that affect the deportment of students, perhaps allaying misunderstandings about motivations and intentions. One teacher, an American Indian, tells that when she herself was a student, she dropped out of college after a brother died because of a tacit familial

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understanding that she, as the eldest daughter, would return to the reservation and be with her grieving family. "I live in two worlds," she says.

The most audible expression of diversity is spoken language. The fact that Americans use so many languages besides English is a national asset that makes the United States unlike any other land in the world in the breadth of its linguistic abilities. An estimated 3.5 to 5.3 million children in elementary schools alone have only limited proficiency in English. The portion of U.S. residents who speak a language other than English at home increased by 41 percent during the 1980s.

In San Francisco's public schools, more than one-third of the students, representing more than 20 different language groups, come from homes where a language other than English is spoken. In New York City, where the 1 million students make up the largest school district in the county, $302.5 million a year is spent just on the bilingual program, which is taught in Spanish, Chinese, Haitian Creole, Russian, Korean, Vietnamese, French, Greek, Arabic, and Bengali. And, in Los Angeles, 39 percent of the enrollment, speaking some 80 languages and dialects, is deemed to have limited proficiency in English. Nothing can be taken for granted in schools when it comes to language. A child's impressions of a sometimes alien world are shaped by the cacophony of bewildering sounds that surround him. Learning cannot be divorced from the ways in which the first language causes one to filter new experiences.

The Cambodian, Laotian, and Thai languages, for example, have little relationship to English in sentence structure and do not use the Roman alphabet in their natural written form. The Hmong people from Cambodia did not even have a written language until a generation ago. Teachers must weigh the cultural implications of language in their efforts to help students develop literacy and knowledge in English. New research indicates that perhaps similar consideration is needed, as well, in cultivating the literate abilities of some American-born black children.

Diversity in language is a treasure to be cherished, not a deficit to be banished. Where proficiency in a language other than English already exists, the schools should cultivate it. And among those who speak only English, the acquisition of second and even third languages ought to be encouraged.

How Are Teachers to Do This?

Teachers who are asked to adapt to the diversity of their students must, in turn, have an opportunity for the professional development that will enable them to learn more about the cultural backgrounds with which they are expected to be familiar. One teacher in whose school district American Indians make up a quarter of the enrollment laments that nothing about American Indians is contained in the curriculum, surely an inexcusable omission.

Teachers need a chance to learn about new teaching materials and to investigate methods of integrating this knowledge into the curriculum. "It doesn't help to be innovative with content that's out of date," says one harried middle school teacher.

A better understanding of the worlds in which their students dwell can help teachers at all levels teach more effectively. When teachers at a school in Alaska sought to improve their teaching of reading, they tried to learn more about the experiences with language that their native Alaskan students bring with them to school. The teachers launched a study of the symbol system that the children use in their play activities.

Ideally, preparation for dealing with the challenges of a diverse student enrollment should begin as a part of a teacher's education in college. One of the most important aspects of the training of future teachers, for instance, would be to help them to learn to value the differences among students. Lip service on behalf of diversity is not sufficient. Bandying about the word "diversity" will not in itself assure that diversity becomes the positive force that it ought to be.

Student teaching and the internships of first-year teachers might be vehicles to prepare novices for the realities of today's classrooms. Aspiring teachers could revolve

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through a variety of schools so that when they finally preside over their own classrooms, they will have been exposed to a wider spectrum of students than would normally be encountered through practice teaching in a single school.

A similar procedure, in fact, might be used to expose experienced teachers to a diversity of students, letting them act as visiting teachers periodically in schools much different from their own. For both beginners and veterans, time spent in a variety of schools should be accompanied by seminars in which to reflect on what they have seen.

A faculty that is itself both sensitive and diverse can benefit all children. Ironically, though, the portion of minority teachers is not numerically keeping up with the growth of minority students in elementary and secondary schools. Looking at the nation's teaching force as a whole, 8 percent are blacks, 3 percent are Hispanics, 1.4 percent are Asians and Pacific Islanders, and .9 percent are American Indians and Alaskan natives.

Schools should strive to provide students with the opportunity to see that all kinds of people can be teachers, including those who look like them. As the school population itself becomes more cosmopolitan, the faculty, too, must be sufficiently diverse that no child has to wonder why teaching careers do not seem to be open to everyone.

A stepped-up drive is needed to attract more members of minority groups into teaching careers. The possibilities for progress are seen in the efforts of Recruiting New Teachers, an organization based in Belmont, Massachusetts, that has run public service advertisements for the last four years to draw candidates into teaching. The campaign produced 687,793 calls to a toll-free telephone number by last fall. Surveys reveal that members of minority groups responded to the appeals at a rate exceeding their representation in the existing teaching force.

Even individual schools can contribute to this effort. Teachers at a high school in California created a program to identify Hispanic students who were interested in becoming teachers. A mentor from the education college at a nearby university is assigned to each such student. Once they graduate and enroll at the university, they are allowed to do their student teaching at their high school alma mater, providing them with a familiar and nurturing environment.

Finally, teachers — both veterans and newcomers — must have skills to enlist parents as partners in the education of their children. Teachers must be equipped to do this regardless of the family's language, educational level, or position in the social structure. Only professional development can make this happen.

TEACHING AND LEARNING

The school should become a learning culture with learners at its core. The rules, organizational structure, and tools of the school should support the creation of this learning culture in the following ways:

- Creating a "global" community so that everyone associated with the school and everywhere the students might be is part of the learning culture
- Fostering the acquisition of new attitudes and new knowledge by all of those — children and adults — associated with the school
- Making available a rich array of resources inside and outside the school to promote learning

I remember, years ago, seeing the film *Blackboard Jungle*. Glenn Ford was having a difficult time in an inner-city school, and so he brought in a movie to show the kids. Only during that day was the class responsive, questioning, and interested in what was going on. Education and entertainment can go together.

Years later, I started a video club in my school district. The school board lent me money to buy video cameras. One project was done in connection with a monument some of the students saw. They wanted to find out what the memorial was about. On the monument was a soldier's name and the date of birth and the date of death, 1968, "Congressional Medal of Honor Winner, Vietnam War."

Their first impulse was to contact the mother. They phoned her, and she said she didn't want to talk about it. And that seemed to be a closed door. The second step, they went to the local newspaper and found all the information on the sergeant that the newspaper had. He was a hero. They found the Medal of Honor citation and some history of this individual. And that was going to be the extent of this video. They were going to identify him and read the citation.

It said that this was a soldier who was in Vietnam, and his position was overrun, and he was wounded. He and three others were moved to an area outside the fighting. The fighting became fiercer and spread. A grenade was thrown into the area, and he dove on it and covered it. Mortally wounded, so they thought, and the Vietnamese kept up a fierce attack. The men were ordered to evacuate. The medics assumed he was dead and left him there. Everyone left.

The next morning, the Americans retook the position, and his body was gone. They had no idea what had happened. He was listed as an MIA. It wasn't until a year later that an American was released from a prisoner of war camp who said that the wounded soldier was in that camp at one time and was now dead. That was another closed door for the students.

The kids called his mother again. They became more interested in the story. They wanted to find out about her son's background, his early education in our school district. And they possibly wanted to find out what kind of person he was. She still said "no." They said they would give it one more try, and they talked to the woman's neighbors. One of the neighbors asked her to talk to the students, and she said "yes."

It was just a little old house next to the railroad tracks. The first thing on the table was the picture of her son, the Congressional Medal of Honor, and the ribbons and citations he had

won. The students had their questions prepared, and they talked to her for about an hour and a half.

Then, his younger brother agreed to talk. They interviewed him. They went to the old yearbooks and found the names of six of his classmates. They talked, too. They found out that Bill hated school. He was very disruptive. He loved sports, and that was the extent of it. His mother had admitted two or three times that he was a discipline problem in school.

The students were putting this all together into what they thought was a complete story. And then, quite by accident, a book came to our attention about six POWs who were in the same camp that Bill had been in. One of them, the one who wrote the book, was in Lynchburg, Virginia. We looked up his name and called him in Lynchburg a few times. Nothing. We reached him the third time and explained the project and asked if he would help. This was over Thanksgiving vacation, and we drove down to Lynchburg.

We got the story of the POW camp and how Bill, after he was captured, was taken into a jungle hospital, treated for two months, and then sent to this camp. Because of his diet and because of the conditions, he deteriorated. The man from Virginia said he died one morning, and "we gave him a Christian burial."

We had the story. We told Bill's mother, who was relieved to find out about the Christian burial, and then we went to Bill's daughter, and she was amazed that we had this information. We talked to her — she had a shrine to her father in her home — and she was cooperative.

We went to the state capital and talked to the senator who had dedicated the monument. In the meantime, the Vietnamese sent back the remains of some Americans, and Bill was one of them. They buried him in Arlington Cemetery. The students went down and videotaped the tombstone in the cemetery. They also went to the Wall.

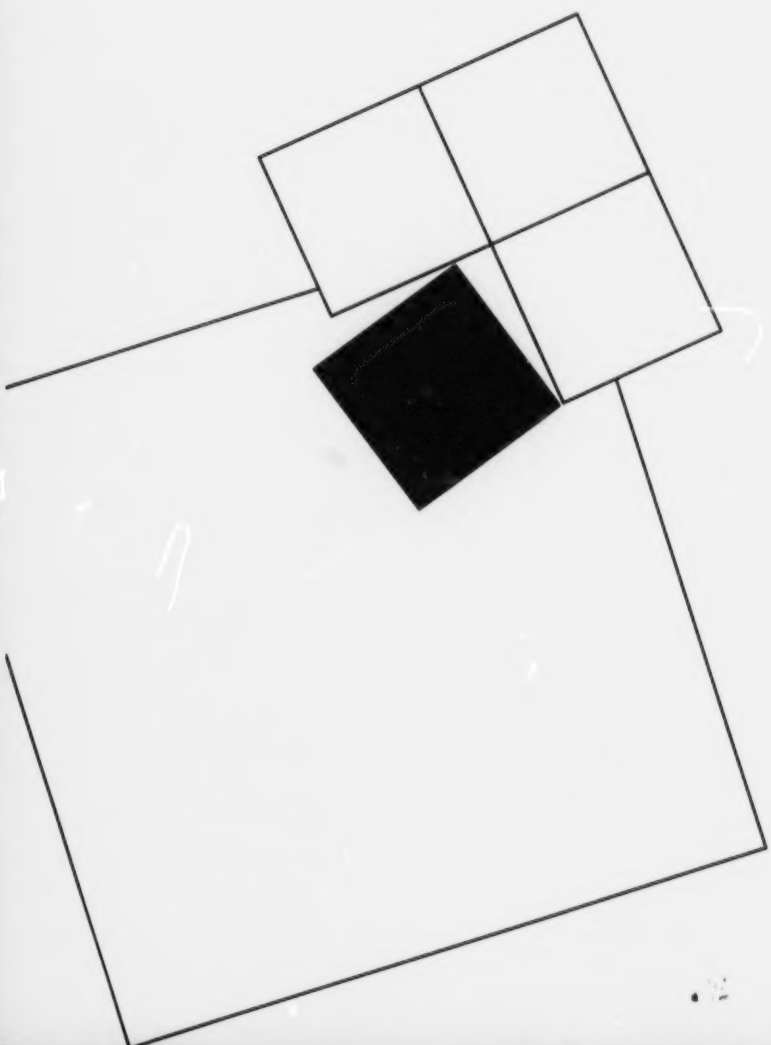
The school's senior class goes on a trip every year, and that year, they voted to go to Washington to lay a wreath on the grave and visit the Wall.

Our students ended up learning not only about the war, a divisive period in our history, but also about their own community. They took pride in the community and pride in the spirit of this soldier. We showed the video on Flag Day. The superintendent was there, the principal, and about 60 or 70 community members. The local VFWs were there and the local Legion people and the local Vietnam Veterans group. His family was there, a big family, about 20 or 25 people.

It was an amazing experience. At the end of the video, we turned the lights on, and there was a stunned silence. No one

moved for two or three minutes, and then they filed out. This showed what students could do. They approached a very sensitive, very emotional issue, and they handled it with a sense of grace. They matured, and they will take this spirit with them forever. Until then, no one in town knew the whole story. Now they had it. The students had learned about video technology, working with computers, research skills, and interviewing.

—From a high school teacher in Pennsylvania



New approaches to education start with an assertive acknowledgment that teaching and learning occur everywhere — in the home, on the playground, in the neighborhood, at the store, on the job, and during the performance of community service, as well as in the school. The traditional notion of the classroom as the sole locus of teaching and learning was never accurate, and now it must be abandoned if teaching and learning are to flourish in myriad settings.

With recognition that learning doesn't stop when a student leaves the classroom, possibilities grow for making greater use of a student's full environment to provide places for teaching and learning. Those who cling to the anachronistic view of school as the only legitimate site for learning put artificial strictures on learning. In a world in which technology has shattered the barriers of time and space, it is hopelessly outdated to imagine that all knowledge can be encapsulated within the four walls of the classroom.

"We shouldn't envision our classrooms as the only place for learning," says a high school teacher in rural Pennsylvania. He tells of taking his students to Russia, making it necessary for them to miss several weeks of school. A fellow teacher, not conceding the extraordinary educational potential of the trip and unconcerned about larger lessons that might be learned away from school, could think only of the fact that the students would be out of school and complained that they would miss his mathematics classes.

Making education student centered not only means using the resources of the "global" community, but involves, as well, lifting the act of teaching to the magnificent level that is achieved by the ablest practitioners. There is no reason, for instance,

why education should not be fun and engaging if it can be made so by an adroit teacher. Lectures can capture and stimulate students' minds. Subjects can be integrated to show the interconnectedness of knowledge. Students can exercise choice about equally valuable directions in which they might pursue their studies, sometimes doing rather than listening.

> *have who cling to the anachronistic view of school as the only legitimate site for learning put artificial structures on learning.*

Karen Sheingold, a researcher at Educational Testing Service, envisions ideal classrooms in which students engage in intellectual tasks "that, by and large, do not have one right answer or only one route to solution" and in which the work "has a purpose that is understandable, even compelling to them."

Some teachers, though, do not know enough about content or pedagogy to allow them to break free of the chains of stultifying tradition. Their teaching is fettered by artificial constraints, even in the most inappropriate circumstances. They simply are unable to reach their students.

Consider, for example, the seven year old who was struggling at school with the rudiments of arithmetic but was working at home, side by side with parents and siblings, to compute the figures for keeping track of the family budget. Something was wrong in school. At yet another school, this one in Indiana, teachers had to fight to win acceptance for the idea of allowing students to tell a story by making a video rather than writing a paper.

"How we teach has to be called into question," declares a computer specialist who teaches in an inner-city high school in Albuquerque where half the students fail at least one mathematics course. "We should be raising as many questions about the teaching methods as we do about the students."

A high school social studies teacher in Texas discovered that a student who seemed hopelessly uninterested in academics could be engaged in learning by exploiting his devotion to basketball. After this 6-foot-11 star player on the varsity team turned in a theme paper with poor organization and atrocious sentence structure, the teacher knew he had to go back to the beginning before the student could be expected to write an intelligible paper.

"The first thing I want you to do tonight is make a list of the top 10 basketball players of all time," the teacher told him one day in class. "Just a list, that's it. Bring it in tomorrow." The teacher also sent a dictionary and a thesaurus home with the boy, called his mother, and asked her to help her son find new words and learn about complete sentences.

When the student returned to class with the list, the teacher asked him to elaborate by telling — again, by writing lists — when each player played, for what college, and for what professional team. And so it went, day after day, the teacher asking the student each time to add a little more information to the lists.

Finally, the teacher noticed that one of the players listed was among the first blacks in the National Basketball Association. He proposed that the student read about the civil rights movement and the influence that it had on the player. By the end of the year, the student had filled an entire notebook based on what he had learned, starting with the 10 names on his original list. His vocabulary expanded, he was writing sentences and descriptions, and he was enjoying it.

Years later, after attending college and playing professional basketball in Europe, he returned to visit the teacher's classroom. The boy, now a man, walked up to the teacher, reached out his big basketball hand, and placed it on the teacher's shoulder. "I learned to write here," he said in deep seriousness. "This is where I learned to write. Thank you."

If, indeed, the world is a classroom, then everyone with whom a young person comes in contact is, in one way or another, a potential teacher. For too long, society has been satisfied to disregard the formidable amount of teaching done, unofficially and mostly unconsciously, by non-teachers. Lack of formal credentials does not, however, make any less consequential the roles of parents, playmates, baby sitters, Little League coaches, and employers in the intellectual, social, and emotional development of the children with whom they come in contact.

One must think in terms of the "teachable moment," which can occur any time and any place. Whoever is with a learner must be ready to seize upon that moment. When a student has a thought or experience that provokes a desire for more information, someone should be prepared to respond. Tailoring a lesson to a concrete experience provides the most memorable kind of learning.

> *If, indeed, the world is a classroom, then everyone with whom a young person comes in contact is, in one way or another, a potential teacher.*

Teachers in classrooms will usually be best positioned to take advantage of the teachable moment by guiding the student through an inquiry that builds on the

experience. But the cause of learning will be immeasurably aided if parents and others who are not professional educators are able to do this, too. Schools, by reaching out, can help people fill this role. Everyone should recognize his or her potential to impart lessons to others. Learners, ideally, should be surrounded in all settings by people who can assume greater responsibility as potential teachers.

This is why the trend toward education for better parenting is gratifying. Typical of the improved efforts to assist parents is the Home Instruction Program for Preschool Youngsters, known as HIPPY, that operates in Texas, Arkansas, and other states. HIPPY has stopped asking how to get parents to come to school and, instead, goes to the parents, trying to make them more skillful and confident as teachers of their children.

Youngsters, too, must come to understand that they are teachers of each other and that — as peer tutors and playmates, for instance — they affect the learning of their fellow students. Some of the most devastating lessons that children learn are taught to them by their peers. Given the power of such influence, it makes sense to try to harness it to positive ends.

Conversely, if everyone is a potential teacher, it follows that everyone is a potential learner. Those who approach interaction with others in the spirit of opening themselves to personal growth will, regardless of the age or position of the other person, tend to be more accepting and recognize that almost everyone has something to learn from someone else.

No discussion of teaching and learning can be complete without acknowledging the part played by resources of all kinds that promote learning and add shades of qualitative difference to the experience.

Learning is enhanced by the adequacy of materials and supplies, sufficient space, proper amounts of time, and opportunities for teachers to gain expertise. It is difficult to imagine that learning is all that it might be in classrooms in which students have no paper on which to write or where books must be shared or where more than 30 children are squeezed into a former storage room or where teachers have almost no chance for professional growth.

Ultimately, in today's world, technology looms as the resource that no classroom should be without if truly there is to be a global learning community. "If I could give my students the best possible education, I'd take them on a world tour," says a fifth-grade teacher in a university town in Illinois. "The next best possible thing is to bring the world to their classroom by technology."

A video disk or a CD ROM, for instance, opens the doors of the greatest museums to a student or takes the student down the waters of the Amazon. Martin Luther King, Jr. can speak intimately of his dreams to the student, or Franklin Delano Roosevelt can emerge as a human being instead of a name on the page of a textbook.

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How Are Teachers to Do This?

By adopting the attitude that the places in which they work are learning communities, teachers can make professional development an ingrained activity that transforms the school milieu. Otherwise, teachers are not apt to fulfill their potential.

Teachers will be best able to do their jobs when they regard their own learning as never at an end. If the ability to teach well is a dynamic trait that is constantly evolving, then it is foolhardy to imagine that any teacher becomes a complete professional by remaining static.

When a positive attitude toward teacher learning prevails, the school can become a place where teachers, administrators, and other members of the staff are constantly expanding themselves. Author Peter M. Senge envisions the "learning organization" as one in which everyone, regardless of assigned role, is also a learner. This should be the goal for each school. Teachers need on-the-job education that enables them to question continually basic assumptions about the ways in which schools operate. This is part of the endless quest for better education.

Even classrooms bristling with the latest technology are of limited value when those classrooms are inhabited by teachers unsure of how such gadgets are to serve the curriculum. It is sad that so many schools have a paucity of computers, but it is equally lamentable that so many other schools have computers that go to waste because teachers do not know how to make proper use of them. "You need to have the time to be trained in the new technology," says a teacher of science and language arts in a Massachusetts middle school.

Preparation for the classroom of the future should start in college, when a person is studying to be a teacher. The National Education Association's Special

Committee on Telecommunications urges that institutions of higher education do more to help future teachers become conversant with technology, declaring that the record in this regard "is not very encouraging."

Teachers also have to arrive at a full appreciation of the importance of the knowledge base affecting both the content of what they teach and the manner in which they impart that content. As teachers hone their craft, they are apt to realize that good teaching is about more than purveying facts. "Teachers have to get away from rote knowledge," a high school science teacher in Alaska says. "That isn't what education is about. True education is about the ability to think."

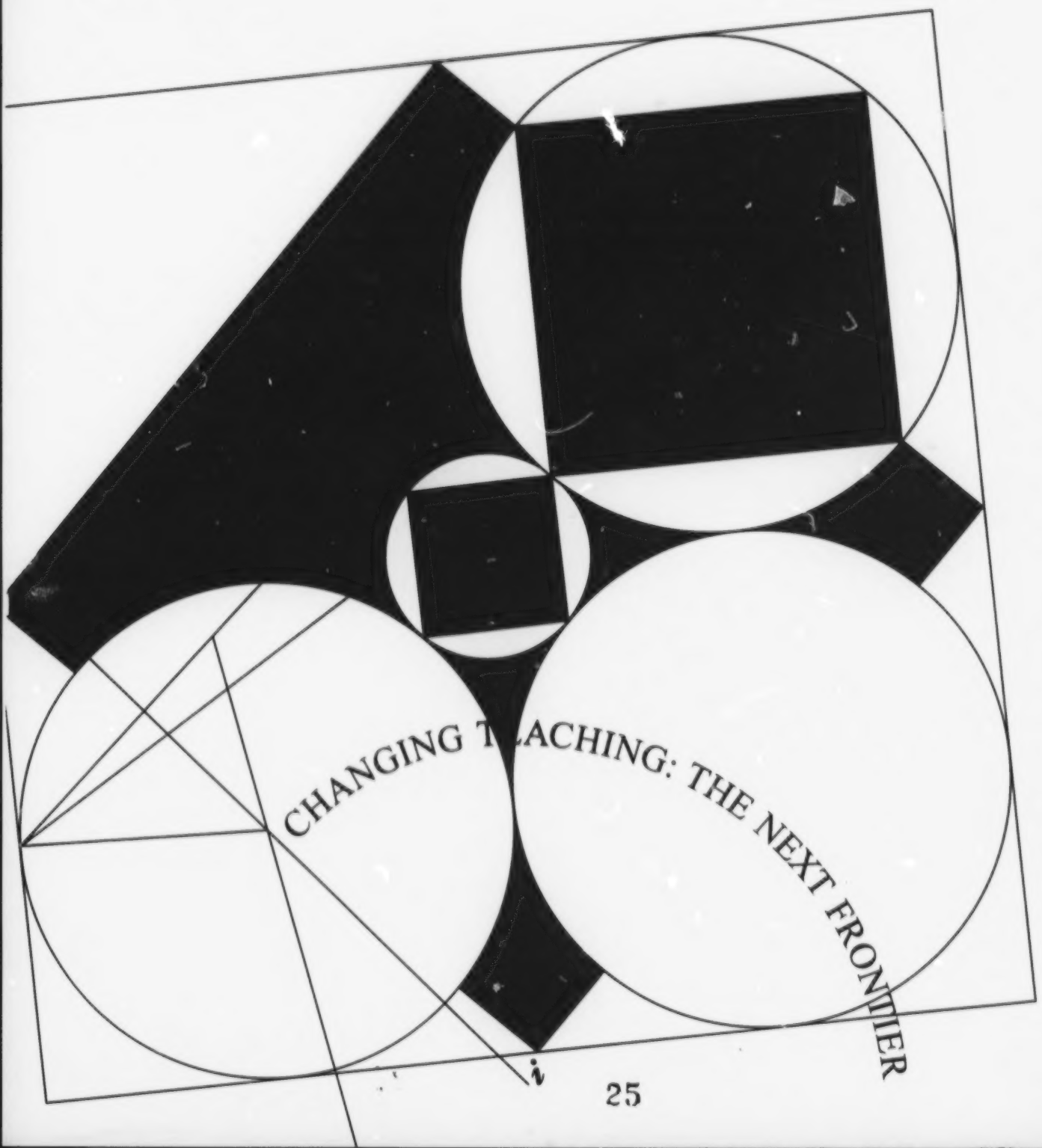
Teaching students how to think is neither easy nor appreciated. A teacher in Washington State recalls the startling experience of being chided by a parent: "You're trying to teach my child to think. I don't want you doing that, because then he will challenge my authority." Teachers must have a sufficient grounding to maintain confidence in the face of such accusations.

Every good teacher knows, after all, that students need to hone the process of inquiry so that they can reason and solve problems. Teaching youngsters to think for themselves will lead them down the road to good citizenship and render them more fully developed human beings. Schools must strive for no less. Some of what is worth knowing is not easily measured by the kinds of tests normally used in schools, but schools must nonetheless be prepared to teach even the unquantifiable, and teachers have to learn how to do this.

This will not happen, though, until teachers are able to teach differently — in ways in which many did not originally learn to teach. Professional development can provide the requisite boost that will allow teachers to gain a perspective from which to observe their own work and the work of colleagues. They can join seminars in which they compare ideas, conduct research in their schools, and call on experts they identify as having the knowledge they cannot get from each other.

But all of this learning must not be delayed until teachers are on the job. Efforts should begin while they are still preparing to be teachers to equip them with what they will need, although, understandably, a portion of it can come only with experience.

Teachers should be taught as part of their own education, for example, how to work in teams and how to make education more learner centered. These are among the recommendations in a report, *Teacher Education for the Twenty-First Century*, issued this year by the American Association of State Colleges and Universities, an organization whose members train more than half of the country's teachers. The report foresees a future in which teachers will have to function in fast-changing, entrepreneurial environments. All teachers must take the necessary steps to get ready for this exciting challenge.


CHANGING TEACHING: THE NEXT FRONTIER

SYSTEMIC REORGANIZATION

Systemic change is a process, not a one-time event. It calls for the following:

- Understanding the interconnectedness of all aspects of the school and realizing that changing one thing affects many other things
- Establishing a context where all players create a shared vision, and translating, communicating, and developing that vision into action by building bridges within the organization
- Understanding the dynamics of the organization
- Recognizing that the responsibility for change resides with everyone involved with the organization

I'd like to share some experiences of how teachers can change, how classrooms can change, and, really, how whole school systems can change. I've been teaching communications technology for the last 10 years, and for the last 6 years I've undergone dramatic change. Technology has become more sophisticated and more affordable. And the whole study of communications technology — with video and television broadcasting and animation and multi-media — has really enabled students to communicate so effectively.

I was working in a classroom that became unique. It was basically an island in the school. A lot of the success of the school system was focused on that one room. Other teachers were frustrated because they, too, needed equipment. Their students didn't have the access that my students had.

I really evolved through three stages. I changed by learning the technology; the classroom changed as it grew with the technology; and then, as we became connected with business and industry, we became connected with outside sources. School districts would send representatives to the room, and we would develop a state syllabus for the curriculum that supported communications technology. But the room was still an island.

So we took a look at the school system. We developed a five-year plan to link instructional technology with curriculum development, and we looked at the role that technology could play in the new curriculum. In dealing with that plan, there were territories to deal with. The territories had different kinds of computers, different formats, different styles of using computers in the classroom.

We struggled with all that. Some people wanted to use computers for certain applications. Others wanted to use a very specific kind of computer and link it with how they perceived it to be used in the real world. The territories could have become battle lines, but they didn't because, as the plan evolved, we looked at some of the changes that my classroom had gone through. I looked back to the phase where I had to change, and I had to look at the way that I taught. I had to have the courage to step aside and let students have access to the technology. I had to know enough to stay out of the way.

As the plan evolved, different opportunities came up, different forces approached the committee to make decisions on how to allocate resources, how to implement the plan, how to follow through. Choices had to be made about implementation, about developing the curriculum. There was a lot of frustration, and there was politics to cope with.

A plan evolved that would, first, deal with teachers in terms of

a teacher resource center because that's the first need that I had experienced. Then, we decided to have a second phase dealing with classroom access, having computers available to students and to teachers in every classroom across the school system. And the third level was similar to what I had experienced — making connections, having people connect with other people. Teachers connecting with teachers, students connecting with students across classrooms and throughout the building. That involved district-wide networks.

The plan is in place now. It wasn't easy integrating kindergarten to 12th grade and the different territories, so to speak. But the lines of separation have disappeared because we formed a coalition. It was on the evening that we presented the plan to the school board that we had key players in industry, key players in library and media services, and key players from throughout the k to 12 curriculum making presentations, endorsing a plan that had been the subject of criticism and debate.

We had to create teacher resource centers so teachers would have access to technology — CD ROM, laser disc players, personal computers for desktop publishing, and multi-media and scanning technology. With that kind of access and the training that went with it, the confidence of teachers increased. We would then go to the next level of having computers in all the classrooms through the budget process. And then, in phase three, it would involve connecting all the classrooms together.

What is good about this is that just one classroom, the one that had all that technology and all those wonderful opportunities, is now replicated throughout an entire school district.

—From a high school teacher in New York State

Too often, school improvement is approached as if bringing about change were as simple as adjusting the thermostat on a furnace to raise or lower the temperature a few degrees. But there is no switch to click on and off when it comes to school change. Schools are complex organizations that will not be changed willy-nilly by the passage of a few statutes in a legislature or the issuance of mandates by a school board.

If the process of school change could be observed, it would resemble a Rube Goldberg contraption in which the movement of one part affects other parts as the machinery grinds along in continuous motion. An understanding of this interconnectedness is a *sine qua non* of change. Because of the interlocking nature of the educational structure — within the school and within the school district — altering one part of the process has multiple consequences, inevitably affecting other parts.

Take assessment, for example. Some reformers think that testing can be changed without regard to the rest of schooling. But assessment loses validity if it is not linked to the curriculum, to the books and materials used to impart the curriculum, and to the teaching itself.

Embarking on change of this sort is like stepping onto an escalator in a department store. It is a journey, once begun, that is not easily abandoned, a process with a speed and direction of its own. "In a school, everything important touches everything else of importance," says Theodore R. Sizer, chairman of the Coalition of Essential Schools. "Change one consequential aspect of that school and all others will be affected. Failure to take account of the synergistic character of a school either delivers its faculty into the frustration of

institutional paralysis or smothers the change which has been introduced."

Thus, it is crucial for those who wish to pursue school change to envision what they hope to achieve. The vision can be a lodestar to guide and inspire change. A vision takes form as those responsible for what happens in the school examine their assumptions about education and about how schools should be organized. Every aspect of the school and how it serves the community ought to be scrutinized.

Absence of vision invites confusion. People need a grand plan, if sketched only in outline form, to allow them to take steps that are deliberate and purposeful on behalf of school improvement. Builders at a construction site would never think of trying to erect a structure without blueprints to follow. But somehow people try to restructure schools with little regard for the system and for the interrelationship of its parts.

A vision cannot be forced upon a school, however. It should be the product of the collective aspirations of the stakeholders in the school community, a result of patience and flexibility. "Shared vision, which is essential, must evolve through the interactions of organization members and leaders," says scholar Michael Fullan. "This takes time and will not succeed unless the vision-building is somewhat open-ended at the beginning."

Time is a key element in systemic reorganization. Teachers must have time to reflect on what changes to make and how they are to be made, and then change itself must be given time to work its way through the system, not unlike an aspirin that one swallows for a headache. A teacher in Louisiana says: "You can't say, 'I have 15 minutes, and this will be the time I use to make change happen.' It's more involved than that."

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Schools have existed in their current form, by and large, for generations, and so it is easy to forget how slow they have been to change. Like impregnable fortresses, schools have resisted the repeated assaults of reformers ever since the first schoolmasters lectured to children and drilled them in their hornbooks more than two centuries ago.

Those who would change schools must constantly build and shore up connections to the various stakeholders, or else innovation will be eroded when the innovators leave or when they decide that they have had enough. A capacity for change must be inculcated in members of the school community so that the organization can be self-renewing and not dependent on the valiant efforts of a handful.

Work in schools is hard and time-consuming, and to depend on just a few people to maintain the momentum for change is likely to be a prescription for failure. Those who become the keepers of the vision must constantly re-adjust the vision to hold the goals in focus as they are pursued.

Everyone who is part of the system has some responsibility for systemic reorganization. This is not a responsibility that can be delegated — as, say, having your house painted or the oil in your car engine changed — because, as a result of the interconnectedness of the school's parts, those who fail to carry their portion of the burden will be a drag on others. In a more positive sense, it is simply easier to succeed when everyone who can contribute is involved. Collectively, a group has more vigor and intelligence than any single person possesses.

For example, when a teacher in San Diego was unable alone to solve the learning problems of a 10 year old, the aid of colleagues was sought. This was an apparently brilliant child whose disabilities included a bad case of dysgraphia. He couldn't write properly. It was decided, after consultations with counselors, the school psychologist, and a psychiatrist, that a possible answer to the student's difficulties might be a lap-top computer that he could use at his desk in class.

The student was introduced to the machine one morning and encouraged to play a math game, disguised as entertainment. He spent the next eight and a half hours — without interruption — at the computer, covering math skills that normally would have been taught over two semesters. "We could not have brought this about without involving everyone in the system," says a teacher at the school.

How Are Teachers to Do This?

Teachers, administrators, and other stakeholders in schools should come to realize that new knowledge and skills are needed each step of the way in the pursuit of change. A close understanding of the dynamics of change and of the organization itself is essential. The agents of change must cultivate an appreciation of today's students and their needs. They must learn how to communicate better with each other and with those outside the school who can be helpful to them.

These are not activities that most teachers were ever taught or that they know automatically how to do. Professional development has to be available. Because teachers ordinarily work in isolation, they have a limited sense of the system as a whole. They are seldom encouraged to peer beyond the walls of their own classrooms so that they might see and comprehend the workings of the larger organization.

Thus, they cannot readily identify the points of connection and, consequently, are less able to contribute to change. "Teachers don't have the skills or knowledge to think organizationally," says a teacher who has become a principal. Professional development, therefore, must go beyond providing teachers with what is required to perform their particular jobs. They need to learn how to analyze aspects of the school's operations beyond their immediate purview. This may help persuade them of the need for systemic change.

Those who are in the vanguard of change must be prepared for rebuffs. A high school teacher on the West Coast says soberly: "I wanted to share the wonders of what we had done collectively, and I recall the response of one of the teachers — and I'll tone this down a degree. He said: 'Go to hell. I have classes to teach. I'm busy.'"

Barriers to change — mostly in human

form — are abundant. They are overcome most readily in an atmosphere supportive of risk. Seldom will anything budge unless someone is willing to take a chance. And risk-takers need the support of administrators who are willing to stand behind them and lend support.

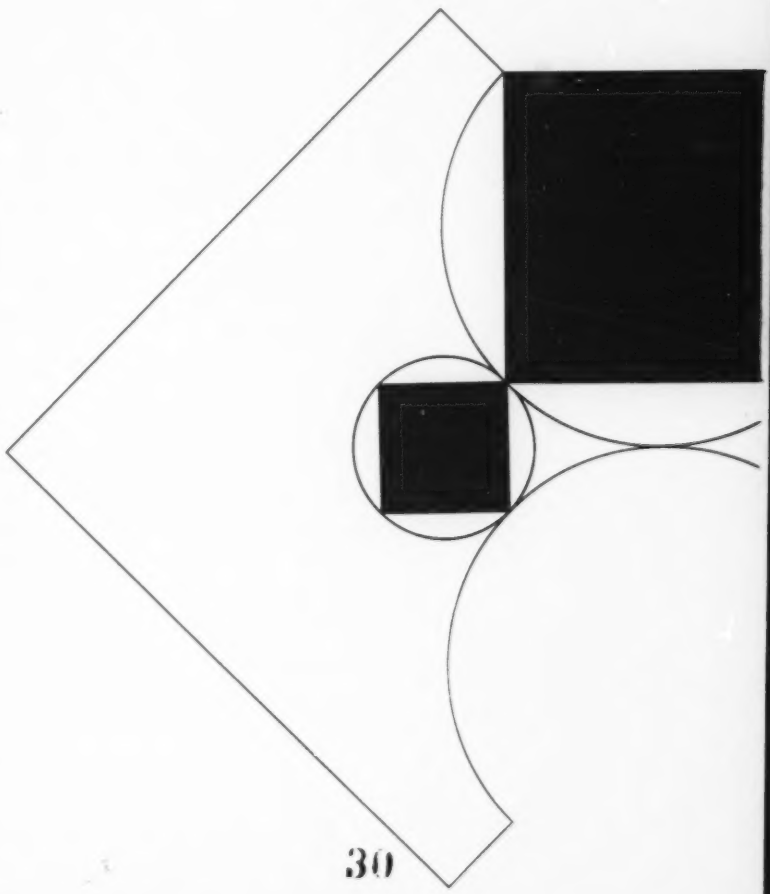
"Someone has to say it's okay, even if you screw up," says the chairman of a math department in a high school in Illinois. Otherwise, teachers are apt to respond as did some members of a faculty at a school in Minnesota, where teachers declared that they were opposed to change because "we have already tried to change, and it didn't work, and we don't want to expose ourselves to failing again."

Professional development can help foster a climate favorable to change when it brings together teachers under circumstances that lead them to feel like teammates who can count on each other. It also helps if the principal is a part of this team and performs as an enabler who can buffer teachers who want to be risk-takers.

People in schools have to learn how to collaborate so that they can reinforce each other and be able to cope with the jealousy and cynicism of naysayers. A common theme in the stories that CMI teachers tell of their efforts to bring about change is the need for personal resilience. Successful change agents in schools tend to be men and women of perseverance. They discover that failure on behalf of school improvement is acceptable.

If people are going to collaborate in ways that are vital for the systemic reorganization of schools, then egos must survive the experience of functioning like little bumper cars that keep ramming into each other. Change is bruising, messy business. The raw edges of feelings will be exposed, and people must learn how to assuage each other, or else the discomfort and pain may overwhelm them.

An underpinning of trust helps enormously. The stakeholders — children, parents, teachers, administrators, business, community, state officials — can build bridges to each other. Professional development that includes a strong dose of sensitivity training may help participants understand what it means to walk in someone else's shoes. Otherwise, they may never achieve the level of cooperation necessary to make the different parts of the school mesh so that systemic change is possible.



BUILDING COALITIONS

The greatest chance for changing schools may lie in putting together coalitions that enlist wide support based on the following premises:

- That teachers, though they usually work alone, have personal and professional predispositions that can allow them to work in partnerships
- That common ground can be found for cooperation between educators and the many organizations outside the schools
- That coalition building depends on the development of specific skills, the formulations of strategies for overcoming barriers, and proper management of the coalition itself

This is the story of a very small school in Alaska. It's a story of hope, of a group of teachers and a community, and it's a story of restructuring and change in a public school. It was a high point of my life to be part of this coalition.

It all began with some of the problems we face in the State of Alaska in the educational system. The teachers at one elementary school got together and decided what we really needed to do was to think about where our students would find jobs in the future, where they were going to find the hope and promise of a future in a state that was constantly changing.

One way of doing this was to provide them with a solid foundation in math and science and technology. Our school had a high percentage of native Alaskans, and many were struggling in reading and mathematics. This is the oldest school in this district and had few resources or amenities.

The teachers talked among themselves and talked with people at the university, deciding with the principal that they really had to find time to talk about what could be done with their school to make it truly a learning community. There just wasn't any time in the school day for them to talk. They tried to get together on a break time. They tried to get together at recess, at lunch, after school. But there was always something that was a problem. The only time that they could find to meet was at 6:30 on Friday mornings.

The teachers went to the university and talked to some folks there, and they went to the community, too. They started to talk to school board members about how people could get together to talk about improving the school. A school board member, a parent, offered her home for a series of breakfast meetings. It was an open invitation. I think at the first meeting there were five or six teachers, one parent, and one university person and the school principal.

At the second meeting, we started recording ideas. We attracted a few more people at that point. By the time Christmas came around, the room was filled. We had about 30 people talking about how to reform and change the school. This went on through the year, and we began to really lay down some action plans. The partnership had grown because we were inviting just about anybody to come. We had scientists from the community. We had biologists. We had an engineer from the airport. We had native Alaskan elders who came to speak about what they thought we needed to do at the school.

People just got together without any clear idea in mind except a common purpose — to make some change, to improve. And the focus came. That focus was science and technology. The teachers said, "Well, to really do this, we ourselves must be learning.

We have to model for the students, so we're going to need time to learn how to teach this to students. What we need to do is design our own learning experiences so that we can help the students design theirs. If we do this together, we can make some change in the school."

They developed a wonderful plan for a true learning community. The principal was going to be learning, the teachers were going to be learning. They would all learn the earth sciences, the physical sciences, the life sciences. The problem was a lack of time to carry out the plan. That's where we began to think about the partnership. We knew what we wanted to do. We didn't have the resources, and we talked about not letting that limit us. We knew there were resources out there. We just had to find them.

It was a time when Eisenhower grant money had become available to the state. So I sat down with some other people, and we wrote out our thoughts about what we could do for this school. We were awarded $60,000 to turn our school into a learning institution. The teachers were going to design their own professional development. This was going to include a curriculum plan, putting curriculum units together and getting the knowledge that they needed by asking the community and the scientists to help them. After deciding what they wanted the university professors to teach them, they developed their own course.

It took a while to sell all this to the board and the community. The teachers put together their presentation and marched down to the meeting of the principals and the superintendent and the board. We talked about a bold, new, innovative experiment in restructuring the school day.

We thought that we could find volunteer retired teachers, but we discovered there really wasn't a large community of such people. So we took funds from the grant and bought permanent substitutes. The university sent down students, preservice teachers. They came into the classrooms and did hands-on science lessons, practicing their skills in teams. Meanwhile, the teachers convened in the school library with university professors, trying to become as highly literate in science as possible.

It was a very radical departure. The superintendent didn't realize the magnitude of allowing a four-and-a-half-day work week for our school so that we could work the other half day on our professional development. After that, every other school would want to have the same work week. But we continued with these efforts and developed a seven-year plan for students and teachers, a plan to get students and teachers involved with serious inquiry into science and technology.

The next year the Eisenhower grant continued, and part of it included releasing a teacher in the school to help other teachers learn how to use technology and science. This was a rotating position. We ended up getting a computer for every classroom.

We developed networks and had community outreach. Professors taught students in the school. We had professors teaching teachers. We had scientists coming down and demonstrating what was new in research. We had native elders come and talk. We didn't deal just with western ways of knowing science. The oral tradition is the way that many Alaskans learned about scientific and environmental phenomena.

We brought people up from the lower 48. We sent teachers to meetings to make presentations. We sent teachers to Japan to learn what they could from another culture. We sent teachers to another school in a rural site and brought teachers from that school to our school so that we could learn more about that community. We sent students there, as well. The culmination of the project was an RJR Nabisco grant for $1 million to continue our plan.

It all started humbly with a group of teachers deciding they wanted to do something and make a difference. They pulled in all the important partners. No one really jumped to assume leadership. We all tried to work together. Everybody felt a part of the project, which is still going on today. The legislature gave the school a special commendation. Probably, the highlight of my entire 20 years in the field of education is seeing this beautiful blue document with a gold seal from the State of Alaska attesting to the fact that education is really a community partnership.

—From an elementary school teacher in Alaska

Implicit in the nation's disenchantment with elementary and secondary education is a belief that the shortcomings of schools contribute in manifold ways to society's problems. Supposedly, a lack of skills among workers entering the labor force hinders productivity. Shortages of Americans trained to the highest levels in mathematics and science are said to undermine international competitiveness. Negative attitudes among young people toward the responsibilities of citizenship reputedly imperil democratic government.

But the obverse side of this discussion is less frequently aired. Society itself plays a role in creating the ills that afflict schools, and surely the schools alone cannot find solutions. What we are talking about here is a collective responsibility. Families, retirees, business and industry, civic, cultural and religious groups, neighborhood associations, government, labor, the media, and higher education are needed by the schools as partners to cope with difficulties that the schools have neither created alone nor are able to combat alone.

Coalitions can do much for education that the educational community cannot do by itself. Partnerships can assist schools in ways affecting teaching and learning, governance, fiscal viability, and almost every other aspect of their operations. The coalition is not an end in itself, but the means through which a goal can be achieved. The aim is to make schools more rewarding for students. A successful coalition might very well put itself out of business.

Public education no longer has the automatic connection with society that it did when a higher portion of households had a direct, vested interest in the public schools. In the late 1950s, some 45 percent of households had a child enrolled, but that figure has fallen to 25 percent in the 1990s, an era of aging population and more single and unmarried households. More than ever before, the schools need allies.

The importance of coalitions was underscored

for a teacher in suburban Chicago whose school district sought to establish an instructional technology center. The task seemed daunting, and the district could hardly get the project started for lack of understanding about where to start. Finally, suggestions were solicited from some local business people.

This reaching out marked a turning point. Business people whose offices are replete with technology were astonished that the school district was so unsophisticated about technology. "They took these things for granted and didn't know that we had a need for them," the teacher said. With the help of business, three town meetings on technology in the schools were scheduled, and a local cable television station even broadcast the meetings to get wider input.

In another school, this one with a substantial population of American Indian students, teachers who wanted to make the curriculum more reflective of the enrollment decided quite properly that they should start by discussing the matter with local tribal leaders. They went to the elders with gifts of tobacco, trying to gain their trust, and invited them to a meeting at which the teachers meant to explain their intentions.

When the elders showed up, they just listened to the teachers, giving no response to what they heard. "They had no concept of what a laser disk was," said one of the teachers, recalling the inauspicious beginning of the effort to build a coalition. That was the start of a process, still under way, to develop an effective curriculum that will please both tribe and school.

Coalitions inside schools are as important as those that reach for partners beyond the walls of the school. Two teachers in a rural Wisconsin district saw a need for strategic planning when they sought to promote better use of technology in the curriculum, a goal to which colleagues were indifferent if not outright hostile. So the two teachers took the lead in forming a committee on which they made certain to include the district's business manager and curriculum coordinator, a school principal, the media specialists, and some teachers. Included on the committee's agenda was training in consensus building.

Then, they saw to it that the work of the committee dovetailed with a separate advisory committee of business people in the community who were asked about the technology skills most needed by entry level employees. This led, for instance, to an immediate realignment of the curriculum to ensure that students learned to use WordPerfect and Lotus 1-2-3. "Ultimately, we thought there would be more financial support for technology in the schools if the community knew we were looking at its needs," says a teacher.

Public schools must identify, learn about, and cultivate groups of stakeholders — inside and outside the schools. Some groups, more than others, will be interested and apt to participate in coalitions on behalf of public education. Chances of cooperation are greatest where there is a merging of interests as, for example, when older homeowners realize that their property values are sustained by supporting the quality of the schools even though they have no children attending them.

A small network of teachers in a southern state used the experience gained in coalition building at the local level to aid others in organizing a coalition at the state level. A first step was to identify the major stakeholders in education throughout the state. Once chosen, some 300 movers and shakers from all spheres of influence assembled for three days of training. Role playing exercises prodded the stakeholders to look at priorities from each other's perspectives. Then, jointly, they set priorities for the coalition as a whole, trying to surmount the divisiveness of individual agendas.

> *...coalitions can do much for education that the educational community can not do by itself.... More than ever before, the schools need allies.*

The variety of views represented within the coalition underscored the difficulty of winning unity, and so members searched for common threads that they might pull together to weave a tapestry of the main concerns represented by the diversity of stakeholders. Above all, it turned out, they shared interests in technology, school learning environments, teacher training, legislative policies, outside donors, higher education, and government funding for schools. Groups were organized around each of these areas, and a manager was assigned to the coalition by the governor's office to coordinate the groups.

In the past, public schools have sometimes operated like secret societies, regarding others as outsiders to be excluded from the club. Now, though, more than ever, schools are finding that they must strengthen ties to their communities. People not directly connected to the schools, unaccustomed as they are to interacting with teachers, are surprised after becoming involved with public education to learn about some of the issues that matter most to teachers.

Many teachers, for instance, would like to have telephones in their classrooms. An uninformed public could readily be cynical about this wish. If, however, noneducators come to understand why teachers think telephones can counteract isolation and make teachers more effective, then

> *A public school must identify, learn about, and cultivate groups of stakeholders — inside and outside the schools.*

perhaps more support would coalesce for this particular innovation.

Telephones in classrooms are just one result of the work of a coalition that an elementary school in a small, impoverished town in North Carolina formed with its community. This is a town where the only jobs for many residents are in the cotton and tobacco fields. The coalition building began when the sixth graders from one class decided to visit the city planner to discuss what the town might look like by the time they graduated from high school. Not only did the city planner eventually let the students work with him, but he and other local officials took steps to permit students to sit as *ex officio* members of committees of the town council.

Then, a delegation from the sixth grade presented its ideas for improving education to a gathering that included the county commissioners, school board members, school principals, and business representatives. Eventually, children from the school were involved with their teachers in an effort to get a $30 million bond issue approved for the schools.

How Are Teachers to Do This?

How are coalitions to be constructed, given the varying agendas of the school's stakeholders? The metaphor of the hitchhiker will suffice.

Educators should be willing to enter coalitions with all groups of good will that have even a scintilla of interest in the schools. Like a hitchhiker seeking to reach a distant town, school people should be willing to go along even if the ride will get them only part of the way to the destination.

This might mean taking a succession of rides, each accounting for just a short leg of the longer journey. Sometimes, when a partner's agenda is not identical to that of the school, it may involve making side trips that seem almost like detours. What counts ultimately is reaching the destination, and so even a circuitous route can be efficacious. The only caveat is to examine the driver closely before climbing aboard, because you have to be careful these days about those with whom you accept a ride.

When this metaphor is applied to teachers, it has to contain a picture of a highway filled with cars, each containing a single driver and no passenger. This, after all, is how most teachers go about their work: alone. There is, at least figuratively, not much carpooling in education. Everyone keeps his or her hands on the steering wheel, and so part of coalition building surely must involve helping teachers to learn how, sometimes, to be passengers in cars in which people take turns driving.

To realize the full potential of coalitions, educators need the advantage of professional development that generates skills essential to working in partnerships. This is unfamiliar ground for most school people. Training is needed to help them identify the power brokers, articulate goals, and understand the structure of coalitions.

Above all, educators must learn more about communications, team building, grant writing, producing newsletters, and public relations. They also need a firmer grasp on knowledge of the political process so that they can better appreciate the milieu in which change must struggle to prevail.

A bonus of learning how to build coalitions with partners outside the schools is the prospect of putting the newly acquired knowledge to work inside the schools. Many of the same skills could help teachers form tighter, more effective bonds with each other. Teams working in schools could have a greater impact than individual practitioners who too often find their jeremiads falling on the ears of recalcitrant listeners.

The report *Teacher Education for the Twenty-First Century* urges teachers to be ready to work in schools that will draw a variety of partners into the educational enterprise to offer a fuller range of educational, social, financial, and emotional resources to students and their families. Inside and outside the school, bringing about improvement increasingly is likely to depend on the work of coalitions.

Attempts to alter teaching and learning will be enhanced by coalitions that can help persuade people that what exists is not working, that something new is needed, and that what is being presented as a substitute offers the best hope for constructive change. Coalitions, in other words, might be the anvil upon which enduring school change is forged.

IN CONCLUSION

Schools will not change until teachers change. People do not seem to understand that. The changes made by the teachers in the Christa McAuliffe Institute show that able teachers, under the right circumstances, can break with the status quo. This is true for all kinds of teachers in all sorts of settings. These are teachers who, collectively, work at all grade levels and teach all subjects. They teach in every part of the country, in school districts of different sizes, in cities, in suburbs, and in rural areas. They belong to various professional associations and, in some cases, to no professional associations whatsoever.

What they share is an enormous individual capacity for change. Many are true pioneers in their own right. Their work has been facilitated by the outside recognition extended to them by the Institute, thereby legitimizing efforts that might otherwise have been considered beyond the pale. "The Institute has given us a cloak of credibility," says one teacher, whose words are echoed by others who say that the prestige of earning national honors has bolstered and emboldened them.

More teachers need such assistance if school improvement is to take root across the country and flourish in a variety of climates. These are teachers who are on the way to deeper understandings of the intricacies of the fragile intellectual and emotional transaction we call teaching.

They are people who recognize that their best intentions can sometimes turn out no better than the system will allow, and so they realize that the workings of the system itself must be considered. They have learned, too, that a coalition can be a salve to soothe a weary traveler who must endure the upheavals of a bumpy road.

A revised definition of professionalism revolves around a belief that knowledgeable and articulate men and women will regard the title of teacher as license to associate themselves with almost any endeavor that impinges upon the life of the classroom and the well being of students. This means that tomorrow's teachers must have attributes not traditionally ascribed to their predecessors.

To be sure, an understanding of the systemic nature of change is essential. But something more, almost intangible, is needed. Teachers should appreciate that a holistic approach to improvement will require them to thrive in situations in which boundaries become permeable, where domains are not so readily defined. They should be less inclined in the future to say that their professional responsibilities end at a certain point beyond which they are not apt to get involved. The most effective teachers will be those best able to integrate the many roles and functions available to them.

The four overlapping areas treated in these pages signal the breadth of the challenge. This report stated at its outset that professional development is a prerequisite for change. Now, the discussion has come full circle, and it should be abundantly clear why this is so. People cannot perform that for which they are unequipped. There is poetic fulfillment in the role that the

National Foundation for the Improvement of Education played in selecting and cultivating the CMI teachers and in bringing them together to reflect on the future of school improvement. NFIE is one of those organizations, by its history and its ties, that is positioned to contribute significantly to helping teachers obtain the kind of professional development they will need in the years ahead.

A teacher need not make excuses for saying he or she does not have all the answers and needs help to find them. Change requires that teachers get the aid that will allow them to be better. Without professional development, the best plans may come to no avail. The use of technology in behalf of change is also an asset, as many of the CMI teachers have demonstrated. Yet, like a baton in the hand of a maestro, technology is but part of the explanation of excellence.

Good teachers are sustained and inspired by a belief in the intrinsic worth of what they do. They know that the children in their classrooms depend on them, a reality that is both heady and intimidating. When informed teachers seek change, it is so that a more humane and more effective system of education can be created. They say that there is no better motto to guide their work than the words spoken by Christa McAuliffe:

"I touch the future. I teach."

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CHRISTA McAULIFFE PIONEERS

The stories, ideas, and recommendations presented in this report come from the visionary teachers of NFIE's Christa McAuliffe Institute for Educational Pioneering. While attending a national NFIE conference called *Rendezvous: A Gathering of National Education Pioneers*, they discussed their trail-breaking experiences and charted new directions for leading education into the 21st Century. The McAuliffe pioneers, whose names follow, call for a broader and bolder form of professionalism and leadership than currently exists.

Alabama
Barbara Durrett
Alice-Marie Morrisson

Alaska
Jack Cadigan
Paul Jewell
Linda Kadrlik
Irene Murphy

Arizona
Theresa Roybal

California
Stephen Blake
Lyn Chan
Carol Gilkinson
Bonnie Goldberg
Michael Goldberg
Pam Kinnaman-Korporaal
Gloria McMillan
Bonnie Price
B.J. Shannon
Brandy Shaw
Marie Sikora

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Hawaii
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Pat Guinther
Carolyn Mossman

Illinois
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Thom Garrard
Ron Gillespie
Diane Korpela
Jan Perry

West Virginia
Jo Blackwood

Wisconsin
Robert Anibas
Julie Eiden
Mark Polebitski

Those whose perpectives are a part of CMI but were unable to attend the conference:

Alaska
Barry Sponder

California
Adrienne Moreland

Massachussetts
Ron Fortunato

Hawaii
Cyndy Everest-Bouch

Indiana
Elizabeth Barrett

Kentucky
Charles Duncan
Ann Booth
Carol Stumbo

Michigan
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Ohio
William Waidelich

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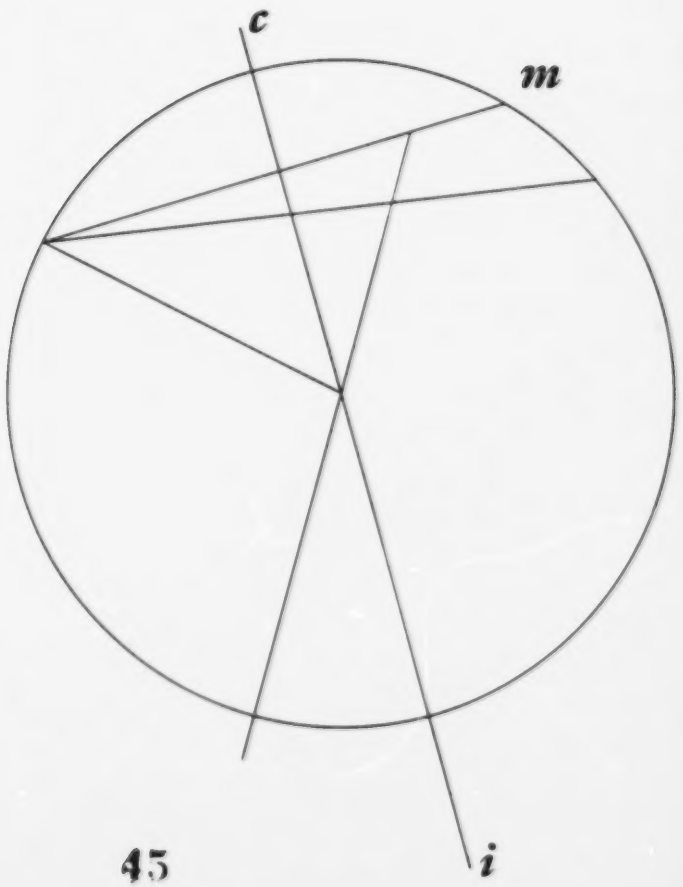
Donna C. Rhodes
Executive Director



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